AMENDMENTS TO THE CLAIMS

IN THE CLAIMS

Please cancel claims 3, 10-13, 15, and 19.

Please amend claims 1, 2, 4-9, 14, 16-18, and 20-21.

Please add new claims 22-24.

A complete listing of all claims is presented below.

1. (Currently Amended) An ophthalmic lens ~~Ophthalmic~~ ~~Lens~~ extraction apparatus comprising:

a phacoemulsification handpiece having a needle, the needle ~~and electrical means for~~ configured to be ultrasonically vibrated ~~vibrating said needle~~;

a power source ~~means for providing~~ configured to provide pulsed electrical power to the handpiece ~~electrical means~~;

~~input means for enabling a surgeon to select an amplitude of the electrical pulses;~~

~~means~~ ~~for providing irrigation fluid to the eye and~~ ~~aspirating~~ ~~fluid from the handpiece needle~~; and

a computer programmed ~~control~~ ~~means,~~ ~~further comprising at least a switch for~~ to ~~controlling~~ control the power source such that the pulsed electrical power to the handpiece has a ~~pulse duty cycle of power supplied to the handpiece~~ pulse repetition rate in a range no less than 25 pulses per second and no greater than 2000 pulses per second~~, an off duty cycle being controlled to ensure heat dissipation before a subsequent pulse is activated~~.

2. (Currently Amended) The lens extraction apparatus according to claim ~~1~~ 22, wherein said switch comprises a footswitch.

3. (Cancelled)

4. (Currently Amended) The lens extraction apparatus according to claim ~~1~~ 22, wherein said ~~input means~~ switch enables a linear selection of the ultrasonic pulse amplitude.

5. (Currently Amended) The lens extraction apparatus of claim ~~3~~ 2, wherein continued linear footswitch displacement enables activation of a series of pulse duty cycles of power supplied to the handpiece.

~~5~~6. (Currently Amended) A phacoemulsification ~~Phacoemulsification~~ apparatus comprising: a phacoemulsification handpiece having a needle ~~and electrical means for~~ , the needle configured to be ultrasonically vibrated ~~vibrating said needle~~; a power source ~~means for~~ configured to ~~providing~~ provide pulsed electrical power to the handpiece ~~electrical means~~; an input ~~means for~~ enabling a surgeon to select at least one of an unltrasonic pulse amplitude~~-of the electrical pulses,~~ and a pulse duty cycle supplied to the handpiece; ~~means for providing irrigation fluid to the eye and aspirating fluid from the handpiece needle;~~ and ~~control means,~~ a computer programmed to respond ~~responsive~~ to the selected pulse amplitude ~~and~~ or the pulse duty cycle, ~~for~~ the computer further programmed to control the power source such that the pulsed electrical power has ~~controlling~~ an off duty cycle to ensure heat dissipation before a subsequent pulse is activated.

~~6~~7. (Currently Amended) The phacoemulsification apparatus according to claim ~~5~~ 6, wherein said ~~switch~~ input comprises a ~~footswitch~~ switch.

~~7~~8. (Currently Amended) The phacoemulsification apparatus according to claim ~~5~~6, wherein said ~~control means provides~~ computer controls the power source to provide pulsed electrical power with a pulse repetition rate of no less than 25 pulses per second and no greater than 2000 pulses per second.

~~8~~9. (Currently Amended) The phacoemulsification apparatus according to claim ~~5~~ 6, wherein said input ~~means~~ enables a linear selection of pulse amplitude.

~~9~~10. (Canceled)

~~10~~11. (Canceled)

~~11~~12. (Canceled)

~~12~~13. (Canceled)

~~13~~14. (Currently Amended) A method for operating a phacoemulsification system, the system including a phacoemulsification handpiece, ~~an ultrasonic~~ a power source~~, a vacuum source, a source of irrigating fluid, and a control unit for providing~~ configured to provide pulsed ~~ultrasonic~~ electrical power to the handpiece, and a control unit, said ~~operating~~ method comprising ~~the steps of~~:

(a) ~~placing the handpiece in an operative relationship with an eye for a phacoemulsification procedure;~~

(b) ~~supplying irrigation fluid from the irrigation fluid source into said eye~~;

(c) providing pulsed ~~ultrasonic~~ electrical power from the ~~ultrasonic~~ power source to the handpiece ~~of~~ for performing the phacoemulsification procedure;

(d) ~~controlling a pulse duty cycle of power supplied to the handpiece~~;

(e) ~~applying vacuum from the vacuum source to the handpiece and thereby aspirating the irrigation fluid from the eye through the handpiece at a selected rate~~;

(f) ~~variably~~ controlling~~, a pulse duty cycle of~~ the power ~~supplied~~ provided to the handpiece to have a pulse repetition rate in a range no less than 25 pulses per second and no greater than 2000 pulses per second ~~, an off duty cycle being controlled to ensure heat dissipation before a subsequent pulse is actuated~~.

~~14~~15. (Canceled)

~~15~~16. (Currently Amended) The method according to claim ~~13~~ 14, wherein ~~the step of~~ controlling the ~~duty cycle of power pulses~~ the power provided to the handpiece includes controlling ~~the~~ a pulse duty cycle in a linear manner.

~~16~~17. (Currently Amended) The method according to claim ~~13~~ 16, wherein controlling a pulse duty cycle includes the use of a footswitch which angles in at least one ordinal plane.

~~17~~18. (Currently Amended) The method according to claim ~~13~~ 14, ~~wherein~~ further including controlling an amplitude of power pulses via ~~use of~~ a footswitch.

~~18~~19. (Canceled)

~~19~~20. (Currently Amended) The method of claim ~~18~~ 14, further comprising provision of a second instrument~~, or~~ for a bimanual phacoemuslification ~~probe~~ procedure.

~~20~~21. (Currently Amended) The method of claim ~~13~~ 14, whereby the heat resulting in tissue insult is mitigated providing a clear cornea within the first post-operative day.

22. (New) The lens extraction apparatus according to claim 1, further including a switch configured to receive manual input of at least one of an ultrasonic pulse amplitude and a pulse duty cycle.

23. (New) The phacoemulsification apparatus according to claim 7, wherein said switch comprises a footswitch, the footswitch configured to enable a surgeon to linearly control the pulse duty cycle.

24. (New) The method according to claim 14, wherein controlling the power provided to the handpiece includes controlling a pulse duty cycle.